

CLAIMS:

1. A method for charging a streaming connection in a mobile packet radio system, the system comprising a streaming source and a subscriber capable of receiving streaming data from said streaming source, the method comprising the steps of:

establishing a data connection for a subscriber;

establishing a streaming connection between said subscriber and a streaming source;

terminating the streaming connection between said subscriber and said streaming source; and

charging said streaming connection using a time-based charging.

2. A method according to claim 1, wherein said step of charging further comprises the steps of:

measuring a length of said streaming connection; and

generating charging information based on said length.

3. A method according to claim 2, wherein said step of measuring said length of said streaming connection further comprises a step of:

identifying a start and an end of said streaming connection based on a change of a state of said streaming connection.

4. A method according to claim 2, wherein said step of measuring the length of said streaming connection further comprises the steps of:

recognizing a start of said streaming connection;

starting a timer for measuring the length of said streaming connection;

recognizing an end of said streaming connection;
stopping said timer for measuring the length of said streaming connection; and
obtaining the length of said streaming connection from said timer.

5. A method according to claim 4, wherein said step of recognizing said start further comprises a step of recognizing a play message.

6. A method according to claim 4, wherein said step of recognizing the end of said streaming connection further comprises the step of recognizing at least one of a teardown message and a disconnect message.

7. A method according to claim 2, wherein said step of measuring said length of said streaming connection further comprises the steps of:

generating time stamps based on messages sent by said subscriber, and

based on said time stamps, calculating said length of said streaming connection.

8. A method according to claim 7, wherein the method further comprises the steps of:

recognizing a start of said streaming connection;

creating a first time stamp indicating a start time of said streaming connection;

recognizing an end of said streaming connection;

creating a second time stamp indicating the end of said streaming connection; and

calculating said length of said streaming connection based on said first and said second time stamps.

9. A method according to claim 8, wherein said step of recognizing said start further comprises a step of recognizing a play message.

10. A method according to claim 8, wherein said step of recognizing said end of said streaming connection further comprises a step of recognizing at least one of a teardown message and a disconnect message.

11. A method according to claim 2, wherein said step of measuring the length of said streaming connection further comprises a step of:

identifying a temporary stop of said streaming connection based on a change of a state of said streaming connection.

12. A method according to claim 11, wherein said step of identifying a temporary stop of said streaming connection is based on identifying a temporary stop.

13. A method according to claim 12, wherein said step of identifying a temporary stop comprises a pause message.

14. A method according to claim 2, wherein said step of measuring the length of said streaming connection further comprises the steps of:

sending temporary stop information about a temporary stop of said streaming connection;

based on said temporary stop information, halting temporarily the measuring of said length of said streaming connection;

sending restart information about a restart of said streaming connection;

based on said restart information, restarting the measuring of said length of said streaming connection; and

measuring the length of said streaming connection based on said temporarily halting and restarting of the measuring of said length of said streaming connection.

15. A method according to claim 1, wherein the method further comprises the step of:

checking whether a streaming connection for the subscriber can be established.

16. A method according to claim 1, wherein the method further comprises the step of:

checking whether said time based charging can be used for said subscriber for streaming connections.

17. A method according to claim 1, wherein the method further comprises the step of:

checking whether said time based charging can be used for said subscriber for said streaming connection.

18. A method according to claim 15, wherein said checking is performed based on at least one of a Mobile Subscriber International Mobile Station Identifier number, an International Mobile Subscriber Identity number, a client number, an identifier number, and a subscriber identifier.

19. A method according to claim 16, wherein said checking is performed based on at least one of a Mobile Subscriber International Mobile Station Identifier number, an International Mobile Subscriber Identity number, a client number, an identifier number, and a subscriber identifier.

20. A method according to claim 17, wherein said checking is performed based on at least one of a Mobile Subscriber International Mobile Station Identifier number, an International Mobile Subscriber Identity number, a client number, an identifier number, and a subscriber identifier.

21. A method according to claim 2, wherein the method further comprises the step of:

storing said length of said streaming connection in one or several charging records.

22. A method according to claim 2, wherein the method comprises the step of:

storing said length of said streaming connection in one or several charging records relating to said subscriber.

23. A method according to claim 2, wherein the method further comprises the step of:

generating a charging record comprising said length of said streaming connection in relation to said subscriber.

24. A mobile packet radio system for charging a streaming connection, the system comprising:

a streaming source;

a subscriber capable of receiving streaming data from said streaming source;

first establishing means for establishing a data connection for said subscriber;

second establishing means for establishing a streaming connection between said subscriber and said streaming source;

terminating means for terminating said streaming connection between said subscriber and said streaming source; and

a charger for charging said streaming connection using a time-based charging.

25. A mobile packet radio system according to claim 24, wherein said charger comprises:

measuring means for measuring a length of said streaming connection; and

a generator responsive to said length for generating charging information.

26. A mobile packet radio system according to claim 25, wherein said measuring means for measuring the length of said streaming connection comprises:

a first identifier for identifying a start and an end of said streaming connection based on a change of a state of said streaming connection.

27. A mobile packet radio system according to claim 25, wherein said measuring means for measuring the length of said streaming connection comprises:

recognizing means for recognizing a start and an end of said streaming connection; and

a timer, responsive to said recognizing means, for measuring the length of said streaming connection.

28. A mobile packet radio system according to claim 27, wherein said recognizing means are configured to recognize the start or the end of said streaming connection by recognizing at least one of a play message, a teardown message and a disconnect message.

29. The mobile packet radio system according to claim 25, wherein said system comprises:

a time stamps generator for generating time stamps in response to messages sent by said subscriber.

30. The mobile packet radio system according to claim 29, wherein the system comprises:

calculator means, responsive to said time stamps, for calculating said length of said streaming connection.

31. The mobile packet radio system according to claim 29, wherein said time stamps generator is arranged:

to recognize a start of said streaming connection;

to create a first time stamp indicating a start time of said streaming connection;

to recognize an end of said streaming connection; and

to create a second time stamp indicating the end of said streaming connection.

32. A mobile packet radio system according to claim 31, wherein said system is, in response to said first and said second time stamp configured to calculate said length of said streaming connection.

33. A mobile packet radio system according to claim 32, wherein said time stamp generator is configured to recognize a start or an end of said streaming connection by recognizing at least one of a play message, a teardown message, and a disconnect message.

34. A mobile packet radio system according to claim 26, wherein said measuring means for measuring the length of said streaming connection comprises:

a second identifier for identifying a temporary stop of said streaming connection in response to a change of a state of said streaming connection.

35. A mobile packet radio system according to claim 34, wherein said second identifier is configured to identify a temporary stop.

36. A mobile packet radio system according to claim 35, wherein said temporary stop comprises a pause message.

37. A mobile packet radio system according to claim 35, wherein said measuring means for measuring the length of said streaming connection are arranged:

to indicate a temporary break of said length of said streaming connection in response to temporary stop information about said temporary stop;

to continue the measuring of said length of said streaming connection in response to restart information about a restart; and

to measure the length of said streaming connection based on said indication of the temporary break and said restarting of the measuring of the length of said streaming connection.

38. A mobile packet radio system according to claim 24, wherein the system further comprises:

a first checker for checking whether said streaming connection for said subscriber can be established.

39. A mobile packet radio system according to claim 24, wherein the system further comprises:

a second checker for checking whether said time based charging can be utilized for said subscriber for streaming connections.

40. A mobile packet radio system according to claim 24, wherein the system further comprises:

a third checker for checking whether said time based charging can be utilized for said subscriber for said streaming connection.

41. A mobile packet radio system according to claim 38, wherein said checking is performed based on at least one of a Mobile Subscriber International Mobile Station Identifier number, an International Mobile Subscriber Identity number, a client number, an identifier number, and a subscriber identifier.

42. A mobile packet radio system according to claim 39, wherein said checking is performed based on at least one of a Mobile Sub-

scriber International Mobile Station Identifier number, an International Mobile Subscriber Identity number, a client number, an identifier number, and a subscriber identifier.

43. A mobile packet radio system according to claim 40 wherein said checking is performed based on at least one of a Mobile Subscriber International Mobile Station Identifier number, an International Mobile Subscriber Identity number, a client number, an identifier number, and a subscriber identifier.

44. A mobile packet radio system according to claim 25, wherein the system further comprises:

a database for storing the length of the streaming connection in one or several charging records.

45. A mobile packet radio system according to claim 25, wherein the system further comprises:

a database for storing the length of the streaming connection in one or several charging records relating to said subscriber.

46. A mobile packet radio system according to claim 25, wherein the system further comprises:

a charging generator for generating a charging record comprising said length of said streaming connection in relation to said subscriber.